ABSTRACT

Community needs of data communication require fast, easy, and mobile process data exchange. To fulfill these needs, 3GPP releases HSDPA (High Speed Downlink Packet Access) technology which is included in 3,5 G. One of service that has been applied in HSDPA is video streaming. Video Streaming can be interpreted as a method that utilize a streaming server to transmit digital video over a data network, so that video playback is possible to play directly without having to wait the download process is completed, or saving it previously in client's computer.

This final project is about analyzing the performance of video streaming in HSDPA network of Node B Martadinata sector 3 owned by Excelcomindo operator in Bandung. On of video streaming application is streaming TV service, where users can watch television broadcasting over mobile phone directly (live) or indirectly (on-demand). Parameters that used to know the performance of this video streaming service based on field measurement results are RSCP, Ec/No, throughput, while parameters based on traffic data are RRC success rate, packet data HS drop, HS accessability success rate.

From traffic data obtained, value of RRC success rate is 99,27660621 %, means this value is below the KPI standard predetermined > 99,5 %. Value of packet data HS drop is 0,535973373 %, means this value has required the KPI standard < 1 %. Value of HS accessability success rate is 98,08773351 %, means this value is below the KPI standard > 99,5 %.

From the results of field measurements that have been done, the value of RSCP is -79,536 dBm for live streaming and -79,59 dBm for on-demand streaming. Value of Ec/No is -8,839 dB for live streaming and -9,15 dB for on-demand streaming. Value of throughput is 363,713 kbps for live streaming and 192,879 kbps for on-demand streaming.